

Tuesday, June 06, 2017 4:57:32 PM

Item ID: D044-662-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: R44 Bearpaw Wearplates

Start Date: 6/6/2017 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 6/9/2017 Req'd Qty: 1.00 * 1 *

Customer:

Reference:

Approvals: Process Plan: [Signature] Date: 2011 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER :									

Work Order ID 162407

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162407

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Item ID: D044-662-041 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: R44 Bearpaw Wearplates
Start Date: 6/6/2017 Start Qty: 1.00 *1* Cust Item ID:
Required Date: 6/9/2017 Req'd Qty: 1.00 *1* Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging	Identify as per dwg & Stock Location: _____ Packaging Memo Identify and pack for shipping as per PPP D044-662-041 Location: _____ PPP Rev: <u>E</u> <u>fs 128</u>	0.00 0.00				DAS 27 9-89			
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00				DAS 21 9-89		JUN 1 4 2017	

DAS
21
9-89

JUN 1 4 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

Picklist Print

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Work Order ID: 162407

162407

Parent Item: D044-662-041

D044-662-041

Parent Item Name: R44 Bearpaw Wearplates

Start Date: 6/6/2017

Required Date: 6/9/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 07-01-30 JLM
IPP Rev:B As per Ecn 932 & 862 07-03-28 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D2274

Manufactured

No

110

Each

476.0000

4

4

D2274

Radius Block

**

JUN 14 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

12

86855

12

ST004

304

155086

304

ST012a

160

157272

160

DAS
6
28
9-89 1-89

D2529

Manufactured

No

110

Each

540.0000

4

4

D2529

Washer

**

JUN 14 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST008

540

155073

40

157443

100

160151

200

160670

200

DAS
6
28
9-89 29

D3565-1

Manufactured

No

110

Each

7.0000

4

4

D3565-1

Wearplate

**

JUN 14 2017

DAS
27
1-89

Location

Loc Qty

Loc Code

ST185

7

141808

3

156962

4

DAS
6
28
9-89 29

Picklist Print

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Work Order ID: 162407

162407

Parent Item: D044-662-041

D044-662-041

Parent Item Name: R44 Bearpaw Wearplates

Start Date: 6/6/2017

Required Date: 6/9/2017

Start Qty: 1.00

Required Qty: 1.00

AN4-12A Purchased No 110 Each 124.0000 4 4

AN4-12A

Bolt

**

JUN 14 2017

Location

Loc Qty

Loc Code

FG 10

120423 10

ST344 114

m137412 114

AN4-16A Purchased No 110 Each 458.0000 4 4

AN4-16A

Bolt

**

JUN 14 2017

Location

Loc Qty

Loc Code

FG 5

121541 5

over003 300

M136986 100

M137507 200

ST343 153

M137412 153

Picklist Print

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Work Order ID: 162407

162407

Parent Item: D044-662-041

D044-662-041

Parent Item Name: R44 Bearpaw Wearplates

Start Date: 6/6/2017

Required Date: 6/9/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

110

Each

3,041.000

4

4

MS21042L4

**

Nut

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

51

m135058

51

OVER007

2400

m137402

400

m137544

1000

m137680

1000

ST303

580

m137371

580

DAS
27
9-89

DAS
26
9-89

DAS
28
9-89

JUN 14 2017

4

Work Order ID 162407

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Accept

N900040100

Setup Start

NS1

Stop

NS2

Item ID: D044-662-041

Revision ID:

Item Name: R44 Bearpaw Wearplates

Start Date: 6/6/2017 Start Qty: 1.00

Required Date: 6/9/2017 Req'd Qty: 1.00

Reference:

Approvals:

Process Plan:

QC:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
IIN-D044-662	E

JUN 14 2017

0.00

100

Document Control
DOCUMENT CONTROL

100

DC

Doc.Control -USB or Paperwork

Memo

Photocopy bluefile & type labels per PPPD044-662-041

CHG 001

0.00

110

Pick Kit

110

Packaging

Packaging

Memo

0.00

QC4- 100% Inspect kits for completeness

0.00

120

120

QC

Quality Control

Memo

0.00

CB

JUN 13 2017



Transport
Canada

Transports
Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
Canada K6A 1K7

Number: SH02-8

Issue No.: 2

Approval Date: February 11, 2002

Issue Date: March 22, 2007

Responsible Office:

Ontario

Aircraft/Engine Type or Model:

ROBINSON R44, R44 II

Canadian Type Certificate or Equivalent:

H-97

Description of Type Design Change:

Bearpaw Installation

**Installation/Operating Data,
Required Equipment and Limitations:**

Manufacture of the Bearpaw Installation must be in accordance with Dart Aerospace Ltd. MDL-D044-662, Revision A, Transport Canada (TCCA) approved 07.02.28, or later TCCA approved revisions.

Installation of the Bearpaw Installation must be in accordance with Dart Aerospace Ltd. IIN-D044-662, Revision D, TCCA approved 07.02.14, or later TCCA approved revisions.

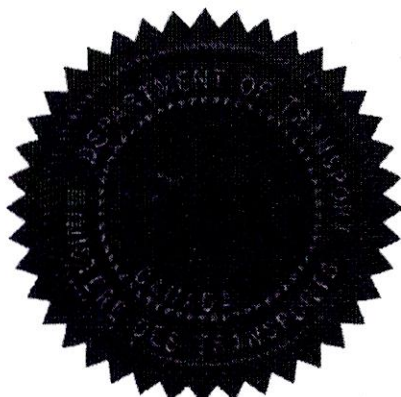
Maintenance of the Bearpaw Installation must be in accordance with Dart Aerospace Ltd. ICA-D044-662, Revision 1, dated 07.02.14, or later TCCA accepted revisions.

Basis of Certification:

The basis of certification for this modification was FAR 27, up to and including Amendment 27-40.

— End —

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.




M.G. Mariotti
For Minister of Transport

Canada

4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D044-662-011 Bearpaw Installation	4.6 lb 2.10 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	128.1 in 3.25 m	589 in-lb 6.8 m-kg
D044-662-013 Bearpaw Installation	6.2 lb 2.81 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	129.1 in 3.28 m	800 in-lb 9.2 m-kg
D044-662-041 Wearplate Kit (Installed on D044-662-011/-013 Bearpaw Kit)*	1.6 lb 0.73 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	128.3 in 3.26 m	205 in-lb 2.4 m-kg

*D044-662-041 weight and balance should be added to D044-662-011/-013 kits

5.0 PARTS LIST

Qty -011	Qty -013	Qty -041	Part Number	Description
X			D044-662-011	BEARPAW INSTALLATION
	X		D044-662-013	BEARPAW INSTALLATION
		X	D044-662-041	WEARPLATE KIT
		4	D2274	Radius Block
8	8	4	D2529	Washer
2			D3075-1	Bearpaw
	2		D3529-1	Bearpaw
4	4		D3556-1	Clamp
		4	D3565-1	Wearplate
8	8		D3601-1	Radius Block
4	4		D4953-1	Cushion (Replaces D2182B045 Cushion)
		4	AN4-12A	Bolt
4	4		AN4-14A	Bolt
4	4		AN4-15A	Bolt
		4	AN4-16A	Bolt
8	8		NAS1149D0463J	Washer (Replaces AN960JD416 Washer)
8	8	4	MS21042L4	Nut (or MS21042-4)